



Brown & Root Environmental

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Project Number 1703

Mr. Paul Kulpa
State of Rhode Island and Providence Plantations
Department of Environmental Management
Division of Site Remediation
291 Promenade Street
Providence, Rhode Island 02908-5767

Subject: Response to Comments to the Draft Final SASE Work Plan, Derecktor Shipyard
Naval Education & Training Center, Newport, Rhode Island

Dear Mr. Kulpa:

Enclosed are four copies of our responses to comments from your office to the Draft Final Work Plan for the On - Shore Site Assessment Screening Evaluation at Derecktor Shipyard. These comments were received by the Navy on November 17, 1995.

If you have any questions regarding this material, please do not hesitate to contact me.

Very truly yours,

Stephen S. Parker
Project Manager

SSP/ib

Enclosure

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ATTACHMENT A
RESPONSES TO COMMENTS FROM THE RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
ON THE
DRAFT FINAL WORK PLAN FOR ON SHORE SITE ASSESSMENT SCREENING EVALUATION
FORMER DERECKTOR SHIPYARD, NETC, NEWPORT RHODE ISLAND
(comments dated 16 November 1995)

1. General Comment:

During the Black Beauty grit removal a number of potential UICs were uncovered. The Work Plan should be modified to include investigation of these areas. In addition, the removal of the black beauty has allowed for access to the crawl space beneath Building 42. This will facilitate the investigation of any suspect floor drains or other discharge points in the building.

Response: An extensive UIC search and investigation program is included in the SASE work plan described in Section 3.3. Drains terminating in soil will be evaluated to determine their applicability with regards to RIDEM UIC regulations. As described in Work Plan Section 3.2.2, the building mechanical drawings will be searched to identify potentially problematic drains.

If possible, the crawl space under Building 42 will be inspected to facilitate investigation of any suspect floor drains or other discharge points in and under the building.

**2. Section 2.6, Recommendations:
Page 2-7, Paragraph 1.**

This section of the Work Plan states that soil samples will be collected from the 0-6 inch interval.

Please be advised that draft Rhode Island Regulations require that surface soils be taken from the 0-2 foot interval.

Response: The referenced statement is a recommendation previously made in the Preliminary Assessment Report (ENSR, 1993) for the site. Sections 3.3.2.3 and 3.3.1.2 of the Work Plan describe the actual sample intervals. A 0-1 foot sample has been selected as it is the most appropriate interval to represent exposure to surface soils. However, in cases where the surface soils come in contact with asphalt, the top 2-4 inches of the soils will be extruded from the sample to minimize impact by SVOCs from the asphalt.

**3. Section 3.3.1.1, Test Pit Excavations:
Page 3-7, Whole Section.**

This section of the report discusses test pitting activities in the water front area.

Please be advised that said activities may fall under CRMC jurisdiction. The Division recommends that the Navy contact CRMC concerning these issues.

Response: The Navy concurs with the comment as stated. The CRMC will be notified of the Work to be performed, and their concerns will be addressed prior to the initiation of this work.

4. **Section 3.3.2.1, Background Target Area:
Page 3-14, Paragraph 3.**

"Vicinity of Fleet Parking Area 2"

The above area is not depicted in Figure 3-2.

Response: Fleet Parking Area No. 2 lies approximately 200 feet off the northeast corner of the area depicted on Figure 3-2. The exact location has yet to be determined, and the Navy would welcome input from the RIDEM to assist in the determination of the location.

5. **Section 3, Figure 3-3:
Page 3-19.**

This figure indicates that the filter pack used in the overburden wells will consist of U.S. Sieve size No 20-30.

All monitoring wells installed at the site must meet the requirements stipulated in the Groundwater Regulations. These requirements include sizing the filter pack for the geology of the area. Accordingly, the report should include the appropriate calculations which support the proposed sieve size.

Response: The work plan specifies using a 0.010 screen slot size and a sand pack consisting of U.S. Sieve size no. 20-30 sand. These construction materials are compatible with a fine grain formation that exists at the site, evidenced by borings performed around Building 42 by TRC Environmental Corporation in December 1994. Monitoring wells constructed in this manner will perform adequately for the purposes of collecting groundwater quality samples and performing aquifer characterization tests using the methods specified in the work plan.

Variations on this construction plan will be made if wells are to be screened in coarse grain formations, as identified by the field geologists during the boring advancement using the Unified Soil Classification System. However, the filter pack and well screen must be compatible with and able to stabilize the finest grained unit within the screened interval. This typically necessitates a smaller screen aperture and filter pack than what would be used to stabilize the coarser grained portions of the formation.

Appendix I of the RIDEM Rules and regulations for Groundwater Quality (July, 1993) entitled "required monitoring Well Construction Standards and Abandonment Procedures" has been included in Appendix B of the Work Plan for reference during field activities.

6. **Section 3.3.2.5, Well Development:
Page 3-21, Paragraph 4.**

"If a well is not completely developed after two hours the field geologist will notify the B&R Environmental PM"

Please be advised that wells in this environment may require additional development time. Therefore, the above citation should be modified as follows:

If a well is not completely developed after four hours the field geologist will notify the B&R Environmental PM.

Response: The Navy concurs with the suggestion, and the change will be made in the Final Work Plan.

**7. Section 3.3.2.8, Groundwater Sample Collection:
Page 3-22, Paragraph 5.**

"Note and measure floating product if necessary."

The above should be modified as follows:

Note, measure and if possible sample LNAPLs and DNAPLs prior to well purging.

Response: The Navy concurs with the comment. However, we will make the amendment as follows:

"Noting, measuring, and if possible, sampling of non-aqueous phase liquids (both LNAPL and DNAPL)"

**8. Section 3.3.2.8, Groundwater Sample Collection:
Page 3-22, Whole Section.**

The report has proposed collecting groundwater samples using low flow techniques.

Low flow techniques should not be used to compensate for wells which have improperly sized filter packs or improper development. This procedure may only be used for turbid newly installed wells which have been properly installed and developed. In addition, the low flow sampling technique is a relatively new procedure which if improperly performed in the field will result in compromised samples. Accordingly, this procedure should only be employed for those wells with turbidity problems. All other wells should be sampled using the less expensive bailer method (one duplicate sample using both techniques may be taken from one well if there are concerns over the different sampling methodology). Finally, this procedure is difficult to perform in the field in that it requires a degree of technical expertise and the ability to deal with unexpected problems. Normally contingency plans are included in the SOP for this procedure. The Division will provide a copy of said contingency if requested by the Navy.

Response: The Navy will install wells in accordance with RIDEM requirements as stated in Section 3.3.2.4 of the work plan. The sampling will be accomplished using low flow methods because is the best method available for determination of metals content in groundwater. The low flow method will acquire samples of groundwater without unnecessarily disturbing the formation and causing interfering turbidity.

**9. Section 4.3.1, Sampling Numbering:
Page 4-10, Whole Section.**

This section of the report indicated that duplicate samples will be labeled as follows MW-6-DUP4. The report indicates that this notation will not provide the laboratory with comparison information (ie MW-6-DUP4 may be a duplicate of any of the soil samples taken from MW-6, therefore the laboratory will be careful with all of the soil samples from MW-6 but will not know which soil sample to compare the duplicate to). The function of QA/QC samples is to gauge the quality of the analysis performed by the lab. It would be inappropriate to provide the lab with information which would allow it to be "careful" with one set of samples from a monitoring well. In order to avoid problems with groundwater samples and to further blind the laboratory to soil

samples the Division recommends limiting the labels of the QA/QC samples to the latter portion of the proposed notation for example DUP-4 in lieu of MW-6-DUP 4.

Response: The Navy concurs with RIDEMs suggestion to label the duplicates completely blind. The paragraph describing duplicate samples will be amended to adapt the approach stated in the comment.

10. Table 3-1, Matrix of Samples to be Collected.

This section of the report indicated that TPH analysis will not be necessary as analysis will be conducted for VOC and SVOCs. As previously stated, due to the limited nature of VOC and SVOC analysis it is not appropriate to substitute these analysis for TPH. Therefore, all appropriate samples should be analyzed for TPH. This analysis may be conducted using a field instrument with 10% of the samples being validated using EPA Method 418.1.

Response: The Navy will concur with the suggested approach for performing TPH analysis on samples currently scoped for TCL VOCs and TCL SVOCs (refer to Table 3-1, page 3-10 of the work plan). Aliquots of all these samples will be screened on site using an immunoassay technique. In addition, up to 10 samples will be selected for laboratory analysis for TPH by EPA method 418.1. The selection of the aliquots will be made based on the odor, and visual condition of the soils. Soils that exhibit fuel odors or have an oily appearance will be split for both immunoassay screening and laboratory TPH analysis.

**11. Section 3.3.2.1, Background Target Areas:
Section 3-14, Whole Section.**

This section of the Work Plan indicates that background soil samples will be collected from the off site groundwater monitoring wells. The Work Plan stipulates that the most contaminated soil profile will be used in this analysis.

The above approach appears to be designed to obtain the most contaminated upgradient subsurface samples. Two of the upgradient sampling locations appear to be suitable for ascertaining whether upgradient sources of contamination exist. The Work Plan has not indicated whether there is contamination present at the third sample station (Near Gate 1). Please be advised that at least one upgradient subsurface soil sample should be collected from an unimpacted area.

Response: The purpose of sample collection from background target areas is to determine soil and groundwater conditions at impacted and unimpacted areas upgradient and within close proximity to the site. The three areas specified in the referenced section are as follows:

- *Vicinity of Fleet Parking Area 2 - This is an area which is hydraulically and topographically upgradient of the site, and is assumed to be unimpacted by NETC or other industrial/commercial operations.*
- *Vicinity of base housing and Gate 1 - This is a misprint, the location is to be placed approximately 800 feet to the east of the site, between NETC Building 1 (Public Works Office) and the base housing to the east. This area is presumed to be unimpacted by NETC or other industrial/commercial operations.*

- *West of steam plant, upgradient of Building 234 - This is an area immediately adjacent and upgradient of the site which is known to have been impacted by releases from the former oil storage tanks supplying fuel to the steam plant. Although this area has been remediated, the proximity to the site requires that potential contaminants be addressed.*

**12. Section 4.1.3.1, Field Duplicates:
Page 4-5, Paragraph 5.**

"Field duplicates will be submitted at the rate of one for every 10 samples per matrix."

The above should be modified to reflect the requirement that QA/QC samples may be sent out at a rate greater than one per ten samples if less than ten samples are sent to the lab per day.

Response: The Navy concurs with this comment, and the clarification will be made as appropriate in Section 4.1.3.1